The SPEAKER pro tempore. Under a previous order of the House, the gentleman from Florida (Mr. MEEK) is recognized for 5 minutes.

(Mr. MEEK of Florida addressed the House. His remarks will appear hereafter in the Extensions of Remarks.)

The SPEAKER pro tempore. Under a previous order of the House, the gentlewoman from New York (Mrs. MALONEY) is recognized for 5 minutes.

(Mrs. MALONEY of New York addressed the House. Her remarks will appear hereafter in the Extensions of Remarks.)

## ENERGY INDEPENDENCE

The SPEAKER pro tempore. Under a previous order of the House, the gentlewoman from Ohio (Ms. KAPTUR) is recognized for 5 minutes.

Ms. KAPTUR. Madam Speaker, I rise on the eve of consideration of major energy legislation here in this House. And while the President seems willing to admit that America is addicted to imported oil, which is step one, recognition, he can't seem to get much further than that. In fact, during his administration, America is now importing over a billion more barrels of imported oil every year. A billion more than when he began his administration.

So admitting we have a problem is easy. You can do it at a distance. You can mention it in your State of the Union address. That doesn't solve the crisis.

Every day that the President makes another empty veto threat against energy legislation is another day for growing our trade deficit by oil. In fact, if you look at what's happening today, nearly three quarters of what we use to drive this economy that is petroleum-based is imported. And that oil import constitutes about a third of our trillion dollar trade deficit. It's a disastrous policy. It takes away America's independence. And it keeps us addicted to a lot of places in the world that don't have democratic governments in place.

Our addiction is obvious, and the solution seems just as clear. When our Nation launched its space program and we embarked upon a national effort, we developed our domestic resources and we began to move into outer space. We can do the same in energy if we were serious. From domestically produced biofuels to wind to fuel cells, hydrogen, solar power, and geothermal, as well as clean coal technologies, the potential of our market is unlimited. But it is limited by our technological and industrial imagination.

With half as many sunny days as countries like Portugal, the world's leading solar energy producer is not the United States but Germany. Germany accounts for 15 percent of worldwide sales in solar panels and other photovoltaic equipment and has 15 of the 20 biggest solar plants. That's right. A country located in Northern Europe with no natural advantage is outperforming the rest of the world. And they are doing the same with wind power.

On wind energy, the story is much the same. Take one look at our Nation's wind map, and our wind potential is very, very clear.

This is a map of the United States, of course, with the darkest areas indicating where we are most wind rich. From rich reserves in offshore wind production along the Great Lakes to the upper plains regions whose fields howl day and night, America must act to capture that endless resource. Simply recognizing the potential is only our first step. While the United States lags behind, European companies are investing billions into our nascent wind market. As pointed out in a recent Herald Tribune article in July of 2007, a Portuguese company, Energias, paid nearly $3 billion to buy Horizon Wind Energy from Goldman Sachs. This purchase secures their parent company, Mexia, with the fourth largest wind farm capacity in the world, behind mostly European companies like Iberdrola of Spain and another Spanish company, Acciona Energia. When is our Nation going to be serious about stepping up to energy independence and capturing some of the resources that bless our land?

The key for developing our domestic industry in both wind and solar is political leadership from here in Washington. And unless we take these needed steps, America will continue to take its lead from foreign nations, and our hopes for developing true domestic new industries along with the jobs they hold will never materialize.

Mr. President, if you are serious about solving our energy crisis, I suggest you enroll in Congress's 12-step plan for recovering from our oil addiction. We will begin some of those discussions tomorrow as the energy bill is considered. Some of the steps are contained in that bill.

It's time that we invite the President to join us in shaping a new energy future for our Nation that restores our inherent economic independence by becoming energy independent and, in so doing, secure political independence for future generations.

The SPEAKER pro tempore. Under a previous order of the House, the gentlewoman from California (Ms. WATERS) is recognized for 5 minutes.

(Ms. WATERS addressed the House. Her remarks will appear hereafter in the Extensions of Remarks.)

## THE ECONOMIC POTENTIAL OF A CLEAN ENERGY REVOLUTION

The SPEAKER pro tempore. Under the Speaker's announced policy of January 18, 2007, the gentleman from Washington (Mr. INSLEE) is recognized for 60 minutes as the designee of the majority leader.

Mr. INSLEE. Madam Speaker, I have come to the House floor tonight to really share some great news, and that doesn't always happen in this Chamber, and the great news is that this week we hope to take a major step forward in our effort to revolutionize the energy economy of America to bring it to a place where we can use the genius of Americans to break our addiction to Middle Eastern oil, to stop global warming, and to grow millions of good-paying green collar jobs in this country. And tomorrow or the next day we hope to have on the floor a bill that will take major strides in that direction to start facing these challenges and really recognizing the economic potential of a clean energy revolution for this country.

We have challenges associated with energy, but we who will bring this bill to the floor believe that we also have opportunities involving energy. And those of us who will be supporting this energy bill believe that we need to look at this from an optimistic, visionary, progressive can-do spirit. And if we hearken to the can-do spirit of Americans, we are going to revolutionize the way we create and use energy in this country. And when we do that, we are going to grow millions of jobs in the process.

If I can briefly just talk about the challenges that we face, and perhaps they are obvious, but I think it is important at least to note them, about why we need a new energy policy in this country. And let me start with the one that perhaps is most obvious to us, and that is that our addiction to Middle Eastern oil threatens our security. It's not a very wise policy. And we were just being briefed by a vice admiral of the United States Navy retired just about 15 minutes ago on this subject. He pointed out that it's not a very good strategic decision to be sending just under $1 million a minute of our money to people who are attacking us in the Middle East.

□ 2030

Funding your enemies is not known as a particularly brilliant strategic move. And Americans know that our national security is at risk as long as we are on the addiction train for the oil coming out of the Mid East.

So we know there is a security reason for our trying to move to a more energy independent position where we are less dependent on oil to run our economy.

Second, we know that global warming is a challenge. I'm certainly aware of this. I represent a district just north of Seattle. My county got 9 inches of rain in 24 hours the day before yesterday. And you will turn on your TV tonight, and you will see these floods. These floods and precipitation events are consistent with the models of what we will see more frequently in the Pacific Northwest with global warming.

We don't want to see that happen. We're seeing it, the last 2 years, we've had these things happen. Mount Rainier National Park was shut down for the first time in 100 years last year because of one of these horrendous rainstorms.

We know that we've seen one million miles of the Arctic melt, just disappear this year, the size of six Californias disappear. We know we have a problem with global warming; we've got to face up to it.

And third, we know that we have a loss of jobs in this country. We've seen a shrinking of our manufacturing base. We've seen outsourcing of our jobs across the world. We're seeing enormous imports coming in from China and exports not going back. So we need to reorient our economy so that we can develop products for export to the rest of the world. And guess what? We have the perfect opportunity to do that in developing clean energy technologies so we can rebuild our economy, and there is a great way to do it.

I want to start by talking about the tremendous strides that Americans are making today in building a new clean energy transportation system for the United States. Now, I get really excited about this. For one reason, two days ago I was in Anaheim, California, at the electric car convention, the 23rd convention of the Electric Car Association in Anaheim, California; and I was blown away by the progress that's being made in the electrification of the automobile.

Now, we have, frankly, not made much progress in increasing the efficiency of our cars since the early 1980s. We did a tremendous thing in the seventies and eighties: we increased our fuel efficiency by over 60 percent in about 5 to 6 years, but then we stopped. Congress stopped, the President stopped, we stopped dead in our tracks from making any progress on fuel efficiency.

Well, for 30 years now we haven't made one mile a gallon improvement. Think about how pathetic that is. Since 1983, we've started the Internet, mapped the human genome, we've even invented the cup holder for our cars; but we haven't improved the mileage they're getting by even 1 mile a gallon. Well, this week, tomorrow or the next day, we hope to pass on this floor a provision that will make the first improvements in 30 years in our automobile efficiency standards that were so incredibly successful in the early years. We need to simply start getting back up on that improvement train because that's what America is about, which is constant improvement.

And we intend to raise it to 35 miles a gallon, which is certainly obtainable, and I'll talk about why we know it's obtainable in a few minutes. We know that's a very obtainable goal, and we hope to pass that. And this is why this is important. I did a little research on this; I've done a lot of research on this. I actually just recently wrote a book about this, so this is where I got a lot of this information. When you write a book about things, you tend to go out and ask a lot of people questions. And what I learned was that if we had simply continued making the same improvements in mileage that we made from 1976 to 1983, if we had simply continued on that rate of improvement, we would be free of Saudi Arabian oil today. Think of what that would have meant to our national security if we were free of that oil influence in our foreign policy. Well, we have to get back in that good habit of expecting more fuel efficient cars.

Now, we know this is capable of happening because we know essentially the technology has become better in our cars; it has simply gone to power and some other things rather than fuel efficiency. But this 35-mile-a-gallon standard I know is achievable because today I am driving a car that gets 45 miles a gallon. This car, it's convenient, it's safe, it carries five people comfortably. I'm 6 foot-2 inches, 200 pounds. It carries me and a big cherry tree in the back very conveniently. So we don't even have to wait until 2020 or 2022 to do this; we have cars that can do this today. But we know that we're going to make transitions, both in cars and trucks of all sizes, to move to more efficiency.

But I'll tell you what's coming. What's coming very shortly is not just these little incremental half-mile, one-mile, two-mile-a-gallon improvements. What is coming is wholesale giant leaps forward in automobile efficiency. And I want to show you why I know that's going to happen, or believe it's going to happen.

This is a picture of a car, the GM Volt. The GM Volt is a car that General Motors hopes to put into mass production in 5 years or so. It would be the first American mass production plug-in hybrid car. The GM Volt is a plug-in hybrid car. And the way a plug-in hybrid car works is ingenious. It has a hybrid system which runs, essentially, the wheels with electric motors. And a hybrid system works partly on an electrical battery system and part on an internal combustion engine that right now is burning gasoline, and some day will burn cellulosic ethanol or biodiesel. But what a plug-in hybrid does is it allows you to charge your batteries at night, and then for about 40 miles all you use is electricity.

So when the GM Volt comes out, you will be able to plug in your car in your garage, unplug it tonight, go about your business. For the first 40 miles, it's all electric; no carbon dioxide coming out of your tailpipe, no gasoline being burned whatsoever. And the daily usage of a car for 60 percent of Americans is less than 40 miles in one day. So when these cars become available in widespread availability, 60 percent of the trips of Americans could be all electric, without using a drop of gasoline.

Now, what happens after 40 miles is you essentially then burn either gasoline, or at some point ethanol or biodiesel, with a combination of the remaining juice in the battery to go the rest of your mileage, with just as much total range as you originally would experience with our normal cars. And when you do this, the combination of that juice in your battery you're plugged in with, and if you run the whole tank dry, you're going to get over 100 miles a gallon of gasoline. And there are cars today doing this. There are several hundred cars already doing this on the road across the country, running these plug-ins. There is quite a number of them that are Toyota Prius conversions that have been converted into these plug-in hybrids.

Now, this is not just some pipe dream. I asked GM to bring this car to Capitol Hill and they showed it to my colleagues a couple of months ago. It was at the car convention yesterday, and people were looking at it like it was the hottest thing on wheels at this convention, because it is. It gives us the opportunity to make a serious break of our addiction to Middle Eastern oil. And it gives Americans the ability to drive a car for 1 to 2 cents a mile for energy from electricity. Gasoline is costing anywhere from 9 to 12 cents a mile to operate a car right now.

So this is a tremendous break for Americans, when these cars get on the road. And we'll be talking about 100 miles a gallon of gasoline, not just 35 in our CAFE standard. GM has hundreds of millions of dollars in investment in this vehicle, and we know that this is a very serious effort in this regard.

Now, there are a couple of virtues I would like to talk about. This car gets better with age, and I'll tell you how. When you use electricity off the grid, you know, some of the electricity is produced with coal that is putting in carbon dioxide in the air and is adding to global warming gases. But as the grid becomes greener, which it will as we use more solar thermal power and as we use more wind power, the energy, the electrical juice we use, will become greener and your car will become greener. It will become a better car, a more efficient car. Now, there are only two things I know of in life that gets better over time, wine, and plug-in hybrid cars. So we're very excited about the progress of this.

I'll give you another little bonus. When you have a car like this, you can rent your batteries to the utility companies. And the utility companies are very excited about being able to ignite, when you're charging your batteries, essentially store their energy in your battery and then draw it back out, if you're not driving your car. They call it a load-leveling service. And they will pay you money for the right to use your battery. And some economists have suggested it could be a value of $2,000 to $3,000 a year. So that's a pretty sweet deal, potentially being paid by your utility company to really move forward.

So this thing is knocking them dead at the convention, and for good reason. And it shows why this 35-mile-a-gallon potential is very, very achievable. And I'm going to be very excited when we get this bill up on the floor.

With that, I would like to yield to my good friend, GEORGE MILLER, who has been leading this visionary effort for years here in the U.S. Congress.

Mr. GEORGE MILLER of California. I thank the gentleman for yielding. And, one, I want to commend him on the success of getting provisions in this legislation on renewable electrical sources that he just pointed out will make all of this better in the future as we see a convergence of transportation, as we see a convergence of energy efficiencies in our homes and our businesses, and then to have a clean, green, and renewable way to generate that electricity. This is going to be a remarkable gift to the American people, to the American economy, to American businesses.

One of the things we've seen first and foremost is in so many instances the amount of money that is being saved by those who are investing in this effort in their businesses to make them more efficient, to make them greener, and to make them cleaner.

I am very excited that this legislation, which you have led the fight on, is also going to include the CAFE standards, the improvements in the miles per gallon that people can expect to get from cars in the future, that we will provide for 35 miles per gallon by the year 2020, which will dramatically change the transportation picture in this country, and then joined with the hybrid, with the renewable energies, can change our dependence on imported oil. And combined with other provisions of this legislation, we know that we have the opportunity to dramatically impact for the good the American economy, our climate, our environment, and the health of our neighborhoods and our cities.

So this energy bill, which many people said was not going to be possible at the beginning of this year, will be a major vote for those of us who are concerned about our dependence on foreign oil, our dependence on fossil fuels at all because of the impacts on the climate, the impacts on the health of our constituents. And it's going to be a remarkable vote when it takes place.

This legislation also provides for energy efficiency and renewable energy worker training. We're now starting to see in this country, as more and more investment is made by the private sector, that we need skilled workers who know how to work in these facilities, who understand the technology, who understand the mechanics of these operations. And that's going to provide real opportunity to working people in this country to create jobs all over this country, not just on the coast, if you will, but in the Midwest and the Southeast, in the Southwest, where wind, where other renewable energy sources are going to be developed, are going to be promoted, and are going to be utilized by those communities.

The gentleman from Washington has been in this struggle, started with the Apollo Project. This isn't quite the Apollo Project, but this is a major down payment, a major, major step, after 30 years of this Congress being shackled by the auto industry and the oil industry and others to continue a policy that has not served this country well and that continues to threaten our economic stability, our national security.

I know how much energy the gentleman from Washington has put into this legislation and put into this issue to get the public to understand something like the GM Volt. We had the automobile on the Hill a few months ago. It's a rather impressive automobile, as you pointed out. I think we probably read the same articles about the recent auto shows where it's attracting a great deal of attention, a major commitment by GM. I'm delighted to see GM now make this thrust into these new technologies, and I think that that legislation will provide further incentives for them to do that.

I read a rather interesting commentary. GM also developed a hybrid for the Tahoe, for their SUV. And in the comments about it, it's not the best hybrid in terms of mileage, if you're really concerned about mileage standards, but it's a major effort, certainly a major effort on behalf of a vehicle that's very popular with the American public.

But the interesting thing was, because of the engineering that they had to do to deal with the hybrid technology, the commentary of the auto reviewers was that they made a better car, this Tahoe was far superior to those that weren't. And they were hoping that they would then transfer the technology, the design, the engineering over to the rest of the fleet because they, in fact, would be presenting a car of higher quality, be it hybrid or nonhybrid, to the American public. And I think it's interesting to see what the spin-offs are and what this kind of engineering develops.

Mr. INSLEE. Would the gentleman yield for a minute on that point?

Mr. GEORGE MILLER of California. Yes, I would be happy to yield.

Mr. INSLEE. I think that's a really important point, that when you embark on a technological effort like this, like the original Apollo Project, we called our bill the New Apollo Energy Project because we understood when we embark on a technological journey like this, we develop all these new subordinate incidental technologies, and we've seen all the benefits from the Apollo Project.

□ 2045

The secret of this car is the battery technology, really. Now, there is some really cool stuff. This glass weighs probably 70 percent less than normal glass. These tires are superefficient because of the way they are designed. There is a lot of weight-saving devices. But the real genius is in the battery. There is a company called A123 Battery. A bunch of folks started it from MIT in Massachusetts. Now they are manufacturing a lithium ion battery that you use right now in your drill. You are using your big drill. Those are lithium, the new hot ones. ''Hot,'' meaning they work, not meaning that they are physically hot. They've taken those batteries and now designed one to work in a car. And I point this out because I talked to a young man named Luke, and I am embarrassed I can't remember his last name, yesterday in Anaheim, and he was with this A123 Battery company. And I said what is the status of this? He said that it is going gangbusters. I am working in a way that all we have to do is put them in a rectangular situation rather than a cylindrical. But the look in this kid's eyes. He is in his upper twenties, and he is managing this project in his upper twenties. The look in his eyes were just glowing with this development of this brand new stuff. And he was jumping up and down being so excited. And that is the kind of spirit that we have the capability of igniting again.

Mr. GEORGE MILLER of California. This bill, when we pass it and send to the President and he signs it, it is just the beginning of this adventure in energy technologies. Earlier this year we passed an innovation bill that dealt with new technologies and encouraging research and development and innovation and discovery, and when we were putting that bill together, we were talking to the CEOs from venture capital companies, from biotech industries, from the high-tech industry. And the question came from a lot of people, when you do all this innovation, you make all this effort, training all the engineers and scientists and others, where are the jobs that result? And Craig Barrett, the former CEO of Intel Corporation and other CEOs of the major tech companies of this country chimed in and said you make an investment, the government must make an investment in energy. That will drive the next generation of technology comparable to the kinds of technologies we saw with that investment in telecommunications, in computers, in the Internet and all the things that resulted from that. Their first choice for that, to drive that technology would be energy and the need that this country and other countries are going to have to develop these sources of energy.

Again, I want to thank the gentleman for all of the work he did. I know how hard he worked, especially on that provision of the bill for the renewable energy standards that are in this legislation. I thank him for his effort on that and also on the Apollo project that kicked off a great part of this debate in the Congress.

What a difference a year makes. Under Republican rule, it took three sessions of Congress just to finish an energy bill that subsidized pollution and Hummers.

But after just 1 year of the new Democratic leadership, we are replacing those subsidies with groundbreaking steps to increase the efficiency of our vehicles, to lower energy costs, to create new jobs, and to combat global warming.

Fuel Economy. The historic fuel economy compromise is supported by labor, the environmental community, and the automobile industry. This is the first increase by Congress since 1975.

The bill will increase fuel economy standards to 35 miles per gallon by 2020 for new cars and trucks.

These provisions will save American families $700 to $1000 per year at the pump, with $22 billion in net consumer savings in 2020 alone.

It will reduce oil consumption by 1.1 million gallons per day in 2020 (one-half of what we currently import from the Persian Gulf), and reduce greenhouse gases equal to taking 28 million of today's average cars and trucks off the road.

Renewable electricity standards. This provision requires utility companies to generate 15 percent of electricity from renewable sources—such as wind power, biomass, wave, tidal, geothermal and solar—by 2020.

Green Jobs. This package creates an Energy Efficiency and Renewable Energy Worker Training Program to train a quality workforce for ''green collar'' jobs—such as solar panel manufacturer and green building construction worker—created by federal renewable energy and energy efficiency initiatives.

Major investments in renewable energy could create 3 million green jobs over 10 years.

Thanks to the leadership in the House by HILDA SOLIS and JOHN TIERNEY, we reported this legislation from the Education and Labor Committee. In the Senate, this important provision has been championed by BERNIE SANDERS and others.

Energy efficiency. The bill includes landmark energy efficiency provisions that save consumers and businesses hundreds of billions of dollars through 2030.

The bill will assist those who want to make their homes and offices more energy efficient, and it creates new energy-efficient appliance standards.

This reflects the successful model pursued by the State of California: cutting greenhouse gas emissions and investing in renewables will lead to economic growth.

Mr. ROHRABACHER. Let me note that I agree with the excitement and the energy that I have seen here today, and I think that there is every reason for optimism that many of the challenges that we face can be overcome by the very forces that we are talking about. I believe there are more market-driven forces, because as the price has gone up, we have unleashed a whole new exciting effort that could be profit-making and also make changes. But, as we are discussing this, there is just one thing that has concerned me on this side of the aisle. And I certainly agree with trying to increase our development of sources of energy, as Mr. MILLER was just talking about, you know, this is the type of investment we can make that will permit these entrepreneurs who respond to the market. I certainly agree that, but, as you were talking about it, we know that electricity is going to be a major factor in the success of the technologies that you are talking about, because each and every one of these we now bring electricity into play where we had internal combustion engines before. But why is it that we, when we face an energy bill like the one coming up, that we have basically written off nuclear energy as a role that it could play in providing that energy and providing us the self-sufficiency that we need in the future?

Mr. INSLEE. Well, actually, the bill, as I understand, will not be writing off nuclear energy. It has been difficult to grow largely in cost. The utilities simply have not purchased it because of its cost even though it has been very heavily subsidized by the taxpayer to the tune of billions of dollars; it still has remained so expensive, the utilities have simply not ordered new plants. It was really not Jane Fonda that ended the growth of the industry; it was simply the cost and economics of it. And this bill does not eliminate that that will be on the floor in the next week.

I want to address, I know, the gentleman from California, and a lot of these good ideas have come from California. Certainly Governor Schwarzenegger has been active in supporting this effort to move to more fuel-efficient standards, and many of them are in California.

I want to address something electricity quick, and then I want to yield to Mr. BLUMENAUER if I can. The gentleman has pointed out that if you are going to have plug-in hybrids, then you have to have electricity to run the plug-in hybrids. But tonight we are going to have some discussion about the multiple systems of clean ways to generate electricity. I want to point to one of them, a company that I have learned about, a company called AUSRA Energy, and their name came up when we were debating the renewable electrical standard.

In this bill, we have a provision that calls for 15 percent of our energy to come from clean, renewable sources by the year 2020, 15 percent clean renewable sources, and a quarter of that can also come from efficiency standards. So I was talking some time ago to some of my colleagues about this from the State of Florida in August when we had the first version of this bill, and my colleagues were expressing the concern that we couldn't do solar energy, for instance, in Florida. Now, that surprised me, because I thought on the license plates it says ''The Sunshine State.'' Nonetheless, Florida does not have as perfect solar energy as does Arizona. There are a few more clouds in Florida. It is maybe 10 percent not as productive as Arizona.

But a week after that conversation, I found a company called AUSRA Energy had signed a contract with a Florida public utility for I believe it is in the nature of a couple hundred megawatts, enough for thousands of homes, both in Florida and in California. And what this company does, this AUSRA company, it uses flat panel mirrors which are in these long rows oriented toward the sun. They are inclined toward a pipe. There is a pipe that is elevated towards these mirrors. It focuses the rays of the sun on that pipe. It heats the water. The water develops steam, the steam turns the turbine, and presto, you have electricity with zero $CO_2$ emissions, zero $CO_2$ emissions, and zero gasoline imports from the Middle East.

And I have looked very carefully at their projections of cost. They have a very realistic path to get to a position to produce electricity as cheaply as coal within the next decade or so. Now, this company is real. It is not a bunch of people in teepees just thinking about this. They have signed commercial contracts for the production of this electricity using this technology.

Now the reason this is so exciting to me is that previously, we have talked for years about photovoltaic energy. And most people who think about solar energy think of photovoltaic, which are basically panels that directly produce electricity from the silicone-based panels, and those are making strides that are very significant with what is called thin-celled photovoltaics. But here is an entirely new way of producing electricity using essentially radiant power, thermal power from the sun, heat to heat energy, and these work really well in tandem with natural gas producers. So we have multiple ways. We will talk about some of these others. And these new technologies just keep popping up.

I want to yield to Mr. BLUMENAUER, a leader from Portland, Oregon, which has been a great city to demonstrate how to use energy efficiently. It is the first city in America to develop a transportation system that gives people choices about how to move around the city, and as a result, it is the first city in America where people have driven less in 1 year ever in American history, and that is because of, in part, Mr. BLUMENAUER's leadership helping develop some of the land use planning and public transportation systems, besides being a great advocate for bicycle riding.

Mr. BLUMENAUER. Thank you. I appreciate the gentleman's courtesy and his continued focus on the opportunities we face with the energy legislation that is coming before us this week, and the bigger picture, the new Apollo project.

I wanted, if I could just elaborate on one point, because I think as you were talking about the compelling opportunities for new technology that are harnessed in the car of the future, I was thinking back to the situation that we faced as some of us were growing up when the United States Department of Defense was paying $100 for a transistor when they could have spent 79

cents for a vacuum tube. But that investment in technology for the future made possible the first Apollo project, sending a person to the moon, miniaturization, the electronics that harness that power. But it also spoke, I think, to the power of having strategic Federal investment and incentives.

I heard my friend from California a moment ago talking about the power of the market. Well, we are all interested, I think, in harnessing market forces wherever possible. And your response about the issue of nuclear energy, that despite massive subsidies, there hasn't been a new plant in the last 30 years because the private sector didn't think it penciled out.

I am interested in opportunities that we can have harnessing this new technology and perhaps using it in sectors like national defense where we can jump-start new technology and we can make a difference for our national security. That, as you know, has been one of the cornerstones of the Speaker's initiative. The first hearings we had on the Global Warming Committee that we both serve on were from national security experts that talked about how our dependence on expensive foreign oil, on traditional energy sources, put us at a strategic disadvantage in terms of oil supply, and it is also having an operational disadvantage for our national defense.

The current war in Iraq is the most intense, most energy-intense military operation in the history of the world. It is four times more energy intense than the first Iraq war. We are delivering gasoline to the front that we are heavily dependent on in great big tankers that might as well have bull's eyes on them at a cost of over $100 a gallon.

What you're outlining here in terms of fuel-efficient vehicles, in terms of new techniques for generating electricity, has the potential of revitalizing American defense posture to make our troops safer and more efficient as well as making battles in areas to secure oil supply less likely.

I just wanted to commend you for dealing with us today in terms of the big picture and what a difference that can make for the lives of everyday Americans in terms of where they shop, how they move, where they work and live, as well as the international arena as well where we are going to be spending $1 trillion in Iraq. This type of technology could be harnessed to make a big difference in terms of national security and technology.

Mr. INSLEE. I really appreciate Mr. BLUMENAUER's observation because it is so true. What we have seen, where we do have military product development then spins off into the civilian sector to all of our benefit. We are going to see that now. Right now the Pentagon is helping to develop a biofuels-based airplane fuel. They are very excited about not being dependent on Middle Eastern oil for the security operations of our own military, and they want to develop a biofuels-based airlines fuel. Boeing is doing the same thing on a civilian basis. They have entered into a consortium with Sir Richard Branson to develop a homegrown biofuel so you can run a jet engine. And the reason it is right to be optimistic about these things is the phenomena that Mr. BLUMENAUER talked about, and that is that things get cheaper as we build more of them and we learn more about technology.

Solar power, every time we have increased the number of units we have sold of solar power, the prices come down 20 percent. There is a curve. You can watch the price come down. It has come down over 80 percent in the last 2 decades. Over 80 percent. And the reason is, besides the fact you discover new techniques, you simply have scales of economy; the more you make of this stuff, the less it is per unit. And that is going to be true predictably for solar thermal as well as the continuation of the photovoltaic world. When we do that, the thing I want to focus on is we want to sell this technology to China.

□ 2100

We want to start putting stuff in boats and shipping it to China and India. We want to take the GM Volt and ship it to Japan. Let's start exporting these things that we grow here with homegrown technology. We know we can do that. We have done it in the past because of good old American know-how.

I want to tell one story about good old American know-how. This is a guy I got to know. We talked about electricity as a source of fuel for transportation. But there are others. There's a guy named John Plaza I met in the course of working on this. John Plaza was an airline pilot 4 or 5 years ago.

Mr. BLUMENAUER, any closing comments before you go?

Mr. BLUMENAUER. I just wanted to express my appreciation for what you're doing. I have the Rules Committee meeting now for the Energy package. I need to go represent Ways and Means. I depart, hanging on your every word.

Mr. INSLEE. We know you're going to produce a great bill for us tomorrow or the next day. Thank you for joining us.

The story of John Plaza is, to me, just a perfect example of what America is about and why this is such a great economy and a great Nation. John was an airline pilot several years ago and he said he got a little tired of flying across the country and reading a book in the cockpit, to the extent that is allowed. He decided to look around for a new opportunity to sort of do something creative.

He started to think about the ability to use biofuels to run our transportation system. John was one of the first people to make biodiesel. He started to essentially brew up biodiesel almost in his garage just a few years ago. Then he decided to make a commercial operation. So he went out and raised some money from a fellow named Matthew Tobias, who did well at Microsoft. They went out, and this is one of the part of the stories I like, they bought two big vats that were used at the Rainier Brewing Company to brew beer. They took those vats and they started to brew biodiesel in a little warehouse on the shores of the Duwamish River in Seattle.

That went so well that they went out to the capital markets and raised tens of millions of dollars to build a real first-class biodiesel facility. Now, in Grays Harbor, Washington, and this is a picture of the Imperium Energy Biodiesel plant, you will see these large tanks used for storage. The Imperium Biodiesel Company now has the capability of producing 100 million gallons a year of biodiesel. It is the largest biodiesel refinery in the world, and it started because one fellow, John Plaza, had this idea and a can-do spirit and optimism and courage enough to go out and start a business to do this.

Now, this is what America is all about. When we pass an energy bill, the kind of things we are going to do are going to help these small business people to start businesses and grow them in the field of clean energy. Now, this company has plans to build perhaps 20 refineries around the country. It is a realistic, a realistic goal to believe that we can produce 25 percent of our transportation fuels in the next 20 years or so by having homegrown biodiesel-advanced forms of ethanol and really make a dent in our oil addiction.

Now I want to, if I can, address for a minute the prospects for these biofuels because I know people have heard about corn ethanol and people have raised concerns that it's not the last word in ethanol. And it is true. Twenty-three percent of our corn now goes to the production of ethanol. It's producing high quality, effective fuel and it's working very, very well. It has some limitations in that we only use the kernel of the corn now. We only use a small percentage of the total fiber that the plants produces.

But on the horizon is an advanced form of ethanol called cellulosic ethanol. Cellulosic ethanol is an ethanol where you take the entire plant, kernel, leaves, shoots, roots, stems, stalk, corn stover, wheat straw, everything you can get your hands on, you mash it up, you mix it with an enzyme that helps break down the fibrous structure of the plants, freeze the carbohydrates. You then use the carbohydrates to distill it into alcohol or ethanol, and ethanol is an alcohol, and basically make high-quality fuel.

Now, cellulosic ethanol, the first plant in America for commercially produced cellulosic ethanol, ground was broken for it the week before last. The Range Company in Georgia is the first one that has the capability of building this advanced form of ethanol. When we do that, we will improve the amount of fuel we produce per acre by a factor of four to five times, potentially, over what we are producing in

corn today, using advanced enzymes and using potentially some additional crops besides corn.

A company called Mendel Biotechnology in Hayward, I visited a few weeks ago, they have developed a plant called miscanthus. Miscanthus is a relative of sugar cane, which can grow through wide, wide areas of the Midwest. It's 10 to 12 feet tall. It uses less fertilizer than corn, it uses less water than corn, and it can produce three to four times as much fuel per acre using the cellulosic ethanol technique. They are now growing test plots of that to see how far north basically this can be grown and in what conditions.

That is not the only plant. There are several other plants. In Idaho, the first loan guarantee has been given to the Iogen Company, among six counties across the country to use essentially wheat straw left in the field as waste. They are going to bundle that up, bale it up, expose it to an enzyme, and do cellulosic ethanol using what was previously a waste product.

By the way, I misspoke. The Range Company in Georgia does not use an enzyme; they use a reactive process. It's a little different than that use of an enzyme to break down the cell structure. Both of them use basically the entire fibrous part of the plant.

The point is that corn ethanol can perhaps be considered as the first generation of biofuels. It is successful, doing a great job, with certain limits that we need to get past, and we can and will get past them if we simply use our know-how. That is what we are doing across the country in these companies, which reminds me of kind of a basic principle. The idea of our energy bill, in part, that we will be passing we hope this week, takes a position that we need to make a fundamental shift on how we think about energy. In the past, all we did was look below our feet for energy. Now we need to start looking above our shoulders and between our ears because ultimately it's intellectual capability and intellectual capacity that is the only infinite power of energy in the universe. That is what we are starting to use. And that is why America is going to do so well in the clean energy revolution, because when there is a transition technologically, America wins. When there is a transition to aeronautics, we win, as we have done with Boeing. When there is a transition to software, we win, as we have done with all our software businesses in this country. We are going to win in this clean energy transition because we do well in developing these technologies, some of which we have talked about tonight.

Now, besides biofuels, there's additional fuels under consideration. We know fuel cells have the potential to use hydrogen, which is under active consideration. At least one company will be bringing a commercial hydrogen fuel cell car to the roads in the next 2 years. There are fleets now using hydrogen fuel cells.

This is a bus transit system in the East Bay area of San Francisco. This is one of the first hydrogen fuel cell buses. They run it over a catalytic bed and they produce electricity and water. That is it. The only thing coming out of the tail pipe of this bus is water. I got the honor of the first Congressman to ever drive a bus, and I didn't hit anything. So it was a success. And I can warrant these are clean, wonderfully quiet, and people are enjoying them today down in the East Bay area.

These fuel cells, because there is an issue about the distribution of hydrogen; it's going to cost money to build a distribution system for hydrogen. They are probably going to happen first in large fleets like buses and transportation systems. But I think there is good reason to believe that we are going to see a lot more use of this in the next decade or so, particularly in these fleets, further application. So we have lots of alternatives.

Mr. ROHRABACHER. Would the gentleman yield for one moment?

Mr. INSLEE. Yes.

Mr. ROHRABACHER. On the issue, first, I'd like to compliment the gentleman on obviously his vast knowledge and research that he had done on these energy issues. I am very impressed with the presentation tonight.

Let me note that in California I worked very closely with Governor Schwarzenegger on a number of these energy issues. One of the new technologies that has emerged is the actual production of hydrogen on a portable basis. There is an inventor in California that has come up with an attachment that can go on any internal combustion engine that actually attaches to the alternator of the engine and creates electricity that goes into a liquid into the small container, which then, as we know, electricity through liquid produces hydrogen and oxygen gas, which is then put into the air intake of the engine.

The Governor, when I described this to him, and we had a lot of trouble with private companies unwilling to actually test this product out, the Governor put it on his Hummer. He said, Dana, I am giving you my Hummer. Put it on the car and I will pay for the test. The Governor actually reached out.

This type of creativity and what you're discussing tonight and a broad array of approaches to our energy challenge, I think, will carry us through. I want to compliment the gentleman on his great presentation tonight.

Mr. INSLEE. I appreciate Mr. ROHRABACHER's comments. I won't make any cracks about the need to improve the imitation. Your Governor is doing great work on this. I appreciate your sentiments.

I want to mention a point. There is a technology I had not heard of. You have mentioned this inventor who's working on this in California. One of the things that is so much fun is you learn about people doing this great work around the country. That particular invention, who knows, it may not go anywhere. Some of the things we have talked about tonight may not pan out to be commercially available. But if we have a strategy that spreads our bets and looks at multiple sources like any good investor does, you spread your investments around, some are going to work out really well, some are going to be just kind of okay, and some of them are going to be duds. And we are going to experience that in this. But because of the genius around the country, we are going to have a lot of successes. So I appreciate your comments Mr. ROHRABACHER.

I just want to point out a couple of other new cutting-edge technologies people may not have heard about that can help fulfill our need for a 15 percent renewable electric standard. This is a picture of wave-power buoys that are now going off the coast of Oregon, the first ones in the country to harness the power in waves. There's enormous energy in waves. If you have ever seen a big freighter go up and down, you understand how powerful the sea is just going up and down.

There's enough energy in a stretch off the coast of the Pacific in just a 10-by 10-mile square. If you just took a 10-by 10-mile square and captured the energy from those waves, it would produce all the electricity for California. Now we are not talking about doing that, but what is under investigation right now is the ability to use this type, and there are two or three types of these buoys, and as they bob up and down, they pressurize a column of water or hydraulic fluid or air and turn an electrical generator that runs in a wire to the shore, and you have got electricity. One of these buoys could power potentially a thousand homes. They are quite powerful.

Ultimately, they are being tested right now and we're finding there's actually more energy than we even thought. That means more stresses. We are learning a lot about the stresses, on how you deal with those stresses. But the Department of Energy has testified to us that they believe that wave power could produce 10 percent of our entire electrical needs in this country in the next couple decades. Now that is very significant. It's just this new idea.

Tidal power is a similar effort. I have a picture of that. We have tidal power that also uses a turbine that looks like a wind turbine and also can produce electricity.

One more comment I want to make about the best source of energy, and that is energy that we don't waste. Energy conservation and energy efficiency is what we need to call the first fuel. Energy that we don't waste is always the cheapest energy to buy.

□ 2115

Finding a way not to let energy escape from our house is almost always the cheapest way to save money on energy.

I just want to point out a couple, Mike and Meg Town. Mike is a teacher at Redmond High School near the Seattle area. Mike and Meg a couple years ago decided to build a home that was essentially a net zero user of electricity, in part because Mike, who was a science teacher, was always talking about this, and one day his kids said, Why don't you go build a house that does this? So he did.

Mike and Meg built a house in very wet, soggy Redmond, Washington. It is one of the wetter areas around. And what they did was they incorporated some sort of commonsense measures into their home to make it very energy efficient, with extra insulation, good windows, just sort of commonsense things, not to let air leak out from your doors, a decently insulated hot-water heater, some planting to allow solar energy to come in to heat up the home. They then put on some panels. You see these black panels on the roof, Mike actually put these on himself.

Now this is a home in wet, rainy near Seattle, Washington, that is a zero net electricity user, saving money, because his meter runs backwards. When these photovoltaic cells are producing electricity, his electric meter runs backwards. That means he is getting a credit against his electricity bill. Now he has essentially, taking into consideration some of the credits he is receiving, a zero electrical bill.

His heat, he has a very small little heater that one of these days he is going to burn wood chips, and wood chips are a biosustainable fuel, because when you burn a biological product, all you do is return $CO_2$ to the atmosphere that the tree or the grass took out.

I point this out because here is people doing real things in a rainy climate, saving energy the old-fashioned way, just doing kind of commonsense things, and our bill calls for provisions that will increase the standards in our homes and our appliances so that we will not waste energy. It is the first fuel, and we are going to use it in a very commonsense American way, and it is going to be a major, major part of our effort to revolutionize our energy system.

So I look forward this week to making a major step forward in the field of energy. We are going to unleash the forces of market and the entrepreneurs around the country, and the homeowners who want to save on energy bills, and the people who are getting tired of paying $3-plus for a gallon of gasoline, and the people who do not want to be addicted to Middle Eastern oil so we don't have to be exposed to security threats from that region, and the people who don't want to fund the terrorists who are attacking us, and the people who see the future of global warming as being a threat to our grandchildren.

This is something that you can unite the Nation, red and blue States, rural and urban. This helps inner-cities, it helps rural communities. It is something I hope we get broad support for.

It is going to be a great day for America when we start this clean energy revolution. It is truly something in the American can-do spirit.

## GENERAL LEAVE

Mr. MANZULLO. Mr. Speaker, I ask unanimous consent that all Members have five legislative days in which to revise and extend their remarks and include extraneous material on the subject of my Special Order.

The SPEAKER pro tempore. Is there objection to the request of the gentleman from Illinois?

There was no objection.

## TRIBUTE TO THE LATE CONGRESSMAN HENRY HYDE

The SPEAKER pro tempore. Under the Speaker's announced policy of January 18, 2007, the gentleman from Illinois (Mr. MANZULLO) is recognized for 60 minutes as the designee of the minority leader.

Mr. MANZULLO. Mr. Speaker, the subject of our Special Order this evening is our dear friend, Henry Hyde.

Mr. Speaker, I would yield to Congressman ROHRABACHER from California.

Mr. ROHRABACHER. Mr. Speaker, today we remember the life of Henry Hyde. Henry Hyde was no doubt one of the greatest Members ever to serve in this Chamber. He was certainly one of the most articulate.

Let me note right off the beginning, Henry Hyde was a personal hero of mine long before I arrived here in this body in 1989. And unlike heroes who I have met over my lifetime, quite often I have been disappointed in the heroes that I have met, Henry Hyde remained a person I admired, a hero that I admired, even after I got to work with him and got to know him personally.

Henry Hyde was, yes, a great orator, and he had a personal presence. Anyone who has ever worked or been around Henry Hyde could tell you that. Yet, these were not the qualities that made his greatness. Henry used his talents and his influence to further fundamental principles and values that reflected Henry's character and his commitment to higher ideals. He rose above politics.

What is it that Henry believed in? What were these higher ideals? Life, liberty and the pursuit of happiness.

Life. Yes, that is the first, that is the first of Henry's values. Yes, Henry was one of the greatest voices in the defense of the unborn on this planet. It was not the popular stand to take, and it still is not necessarily the popular stand to take. It was a moral imperative, however, a moral imperative that Henry felt very deeply about.

When someone believes that the issue of abortion is not an issue that concerns tissue being extracted from a woman's body, but is instead an issue that deals with the ending of a human life, the principle is clear. But the courage to advocate such a moral and principled position may not match the importance of the issue itself.

Henry spoke with such eloquence on so many issues, but on this issue, one could not help but admire him and know that it was something that was coming from his heart, and a heart that was filled with love. He was a national force in the battle to protect the unborn. This is part of his legacy and something we should not forget and we should always remember him for, because it took courage for him to lead this battle.

Henry made this issue a crusade, and he did much himself to create the movement that now I think has brought public opinion and at least the public consciousness more to what the issue is on this issue of abortion. Yes, life was Henry's number one priority.

Liberty. Henry fought for liberty as a young naval officer in the Philippines during the Second World War. I was very honored to have gone with Henry to the Philippines where he was issued a medal for his service as a young man in the Second World War. He then after the war returned home and fought the battle for liberty in both the State legislature in Illinois, and, yes, here in the halls of Congress.

Henry's war was a war for liberty and justice for all. Henry was chairman of the Judiciary Committee. And, yes, we should not forget another controversial thing about Henry. He led that Judiciary Committee at a time of an impeachment procedure against President Bill Clinton. With the sexual implications of the charges against the former President, that endeavor could have turned into a lurid political circus. Instead, Henry Hyde insisted on maintaining standards and maintaining that the issue was perjury, and that was the only issue to be approached and discussed, and he insisted on maintaining the decorum of this House under these most trying of circumstances.

After serving as chairman the Judiciary Committee, he moved on to serve as chairman of the International Relations Committee. I was honored to serve with him on that august committee, and I watched firsthand as he stepped up and he maintained his commitment not only to American security, but to human liberty. These were the paramount issues for Henry Hyde, whether our country was safe and whether human liberty was being furthered.

Yes, Henry Hyde was the chairman of the International Relations Committee and led us after 9/11, led us at a time when we went into war with radical Islam, a war in which we are currently engaged. And Henry, his courage, his strength, his character, did very much to ensure the American people that, yes, we will prevail over this monstrous evil enemy that we face.

Well, finally let me note the pursuit of happiness. All of us who knew Henry know that he was a man who enjoyed